

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1 (currently amended): A data communication system comprising:

a source node adapted to transfer object data;

one or more destination nodes adapted to receive the object data

transferred from said source node; and

a controller adapted to set a logical connection between the source node and the one or more destination nodes,

wherein said source node is adapted (a) to obtain ~~a reception capability of a respective destination node~~ connection information indicating the logical connection from said controller, (b) to set a segment size in accordance with the reception capability of ~~[[the]]~~ a respective destination node in order to divide the object data into one or more segments, (c) to divide the object data into one or more segments in accordance with the segment size, and (d) to transfer packets including data in ~~[[each]]~~ the one or more segment and the connection information from said source node to said one or more destination nodes via a serial bus ~~with information corresponding to the logical connection set by the controller, and~~

~~wherein the reception capability of the respective destination includes a maximum payload size of an asynchronous packet.~~

Claims 2 - 7 (canceled)

Claim 8 (previously presented): A data communication system according to claim 1, wherein each said destination node includes a receiving buffer, and wherein said source node is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 9 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to set the segment size in accordance with the maximum payload size of each destination node.

Claim 10 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to set the segment size in accordance with the lowest reception capability.

Claim 11 (previously presented): A data communication system according to claim 1, wherein the segment size of each segment is variable.

Claims 12 - 20 (canceled)

Claim 21 (currently amended): A data communication system according to claim 1, wherein ~~said data communication system~~ the serial bus conforms to IEEE 1394-1995

standard.

Claim 22 (previously presented): A data communication system according to claim 1, wherein the object data includes image data.

Claim 23 (canceled)

Claim 24 (currently amended): A ~~data communication~~ method of transferring object data from a source node to one or more destination nodes, said method comprising the steps of:

providing ~~a reception capability of the respective destination node~~
connection information indicating a logical connection between the source node and the one or more destination nodes from a controller to the source node, ~~wherein the controller is adapted to~~
~~set a logical connection between the data communication apparatus~~ source node and the one or more destination nodes is set by the controller;

setting a segment size in accordance with the reception capability of a respective destination node in order to divide the object data into one or more segments;

dividing the object data into one or more segments in accordance with the segment size; and

transferring packets including data in ~~[[each]]~~ the one or more segment and the connection information from the source node to the one or more destination nodes via a serial bus ~~with information corresponding to the logical connection set by the controller~~;

~~wherein the reception capability of the respective destination includes a maximum payload size of an asynchronous packet.~~

Claims 25 - 27 (canceled)

Claim 28 (currently amended): A data communication apparatus which transfers object data to one or more destination nodes, said data communication apparatus comprising:

a control unit adapted (a) to obtain ~~a reception capability of the respective destination node~~ connection information indicating a logical connection between the source node and the one or more destination from a controller, wherein the controller is adapted to set a logical connection between [[the]] said data communication apparatus and the one or more destination nodes is set by the controller, (b) to set a segment size in accordance with [[the]] a reception capability of a respective destination node in order to divide the object data into one or more segments, and (c) to divide the object data into one or more segments in accordance with the segment size; and

a data communication ~~unit, coupled to said control unit~~, adapted to transfer packets including data in [[each]] the one or more segment and the connection information from said data communication apparatus to the one or more destination nodes via a serial bus ~~with information corresponding to the logical connection set by the controller;~~

~~wherein the reception capability of the respective destination includes a~~

~~maximum payload size of an asynchronous packet.~~

Claims 29 - 34 (canceled)

Claim 34 (currently amended): A ~~data communication~~ method according to claim 24, wherein said transfer step includes continuously transferring data in each segment from the source node to the one or more destination nodes via the logical connection.

Claim 35 (currently amended): A ~~data communication~~ method according to claim 24, wherein ~~said setting step includes setting~~ the segment size is set in accordance with a size of a receiving buffer in each destination node.

Claim 36 (currently amended): A ~~data communication~~ method according to claim 24, wherein ~~said setting step includes setting~~ the segment size is set in accordance with the maximum payload size of each destination node.

Claim 37 (currently amended): A ~~data communication~~ method according to claim 24, wherein ~~said setting step includes setting~~ the segment size is set in accordance with the lowest reception capability.

Claim 38 (currently amended): A ~~data communication~~ method according to claim 24, wherein the segment size of each segment is variable.

Claim 39 (canceled)

Claim 40 (currently amended): A ~~data communication~~ method according to claim 24, wherein ~~said data communication method is applicable~~ the serial bus conforms to IEEE 1394-1995 standard.

Claim 41 (currently amended): A ~~data communication~~ method according to claim 24, wherein the object data includes image data.

Claim 42 (canceled)

Claim 43 (previously presented): A data communication apparatus according to claim 28, wherein each said destination node includes a receiving buffer and wherein said control unit is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 44 (previously presented): A data communication apparatus according to claim 28, wherein said control unit is adapted to set the segment size in accordance with the maximum payload size of each destination node.

Claim 45 (previously presented): A data communication apparatus according to claim 28, wherein said control unit is adapted to set the segment size in accordance with the

lowest reception capability.

Claim 46 (previously presented): A data communication apparatus according to claim 28, wherein the segment size of each segment is variable.

Claim 47 (canceled)

Claim 48 (currently amended): A data communication apparatus according to claim 28, wherein ~~said apparatus and the one or more destination nodes are in a system that~~ the serial bus conforms to IEEE 1394-1995 standard.

Claim 49 (previously presented): A data communication apparatus according to claim 28, wherein the object data includes image data.